

# MINOS+ Status Report



# Donatella Torretta All Experimenters' Meeting February 8, 2016



## Near Detector





#### **DAQ**

- Running fine
- One DAQ crash yesterday afternoon, fixed within 20 minutes.

#### **Electronics/Detector issues**

- Fixed a cold and a few warm channels
  - Replaced the Minder boards during last week's beam downtime
- A new cold and hot channels appeared over the weekend



## Far Detector



### **DAQ**



- Running fine
- Crash on Friday morning, recovered in 10 minutes
- Crash on Saturday evening ~23:00 pm, fixed around 5:00 am on Sunday: unfortunately the alarm went unnoticed

#### **Electronics/Detector news**

- Scheduled DNR Mine power outage on Wednesday, during NuMI downtime
- Electronics issues lengthened the recovery time: eventually swapped 3 VARCs modules (lost configuration during long power down?)
- Lost about 7 hours of beam



## MINOS+ Status

		Near Detector		Far Detector	
Start Date/Time	End Date/Time	<b>POT Fraction</b>	<b>Live Time Fraction</b>	<b>POT Fraction</b>	Live Time Fraction
10/26/2015 00:00:00	11/2/2015 00:00:00	97.9%	97.6%	97.6%	98.1%
11/2/2015 00:00:00	11/9/2015 00:00:00	99.5%	99.5%	91.5%	93.4%
11/9/2015 00:00:00	11/16/2015 00:00:00	99.2%	98.9%	99.7\$	98.9%
11/16/2015 00:00:00	11/23/2015 00:00:00	88.7%(*)	85% (*)	99.8%	99.9%
11/23/2015 00:00:00	11/30/2015 00:00:00	99.6%	99.4%	99.9%	99.9%
11/30/2015 00:00:00	12/7/2015 00:00:00	95.6%	95.4%	99.9%	99.6%
12/7/2015 00:00:00	12/14/2015 00:00:00	99.6%	99.6%	99.7%	99.4%
12/14/2015 00:00:00	12/21/2015 00:00:00	99.7%	99.5%	99.8%	99.5%
12/21/2015 00:00:00	12/28/2015 00:00:00	99.7%	99.7%	43.4%(**)	43.6%(**)
12/28/2015 00:00:00	1/4/2016 00:00:00	81%(@)	85%( <u>@</u> )	70%(**)	71%(**)
1/4/2016 00:00:00	1/11/2015 00:00:00	97.5%	97.1%	99.8%	99.8%
1/11/2016 00:00:00	1/18/2016 00:00:00	81.0%(&)	71.5%(&)	92.1%	96.5%
1/18/2016 00:00:00	1/25/2016 00:00:00	97.1%	97.3%	99.7%	99.8%
1/25/2016 00:00:00	2/1/2016 00:00:00	98.8%	97.2%	98.7%	96.5%

99.2%

98.9%

87%

(\*\*) Bad Field Point controller (@) Bad HV Controller (&) Numi Breaker power glitches

2/8/2016 00:00:00

2/1/2016 00:00:00

86%

<sup>(\*)</sup> Intermittent HV bad readings: DQ flags whole subruns as bad, hence lower LiveTimes.



# MINOS+ ND Status



ND POT Fraction
ND Live Time

Fraction

#### ND POT fraction and Live Time Fraction



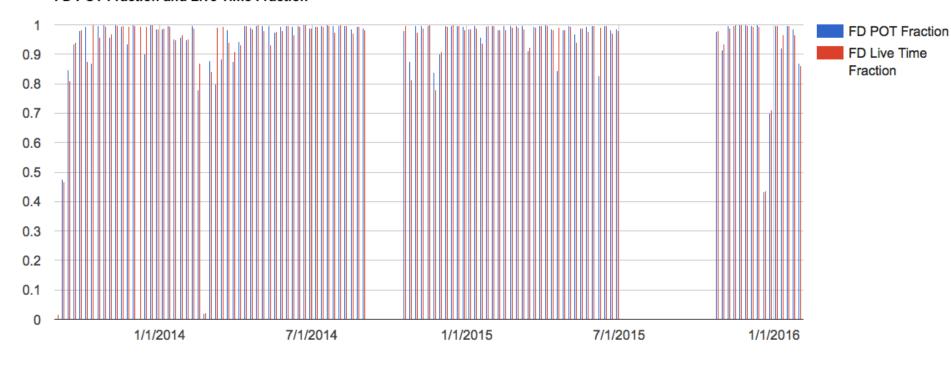
Start Date



# MINOS+ FD Status



#### **FD POT Fraction and Live Time Fraction**



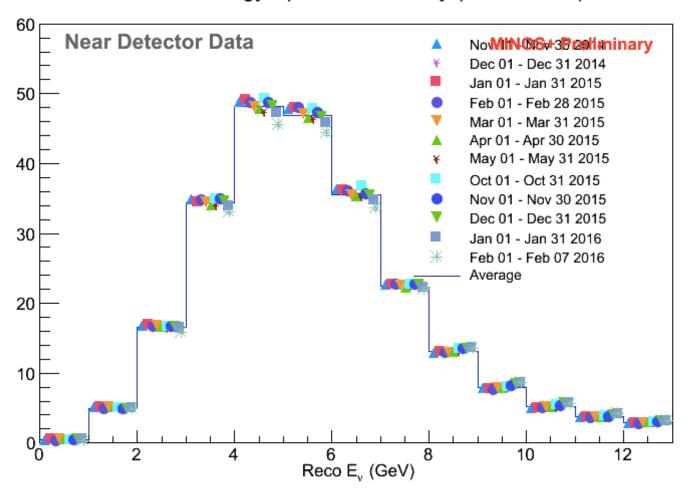
Start Data



# **Energy Spectrum**



Neutrino Energy Spectrum Stability (PQ and NQ)

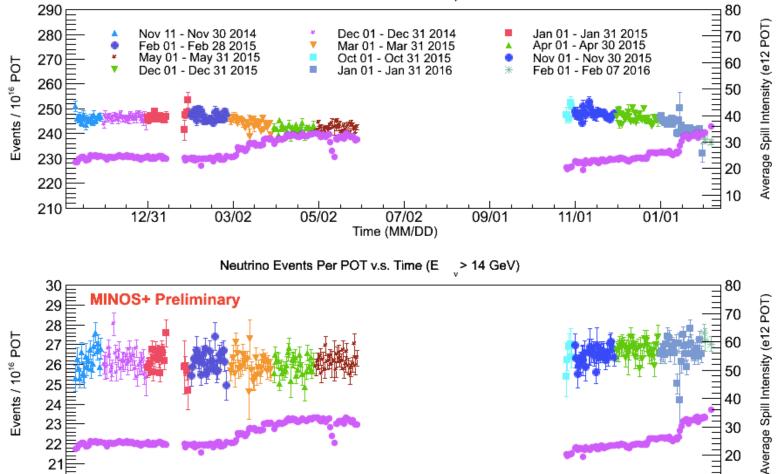


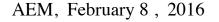


## Events/POT + Intensity









12/31

03/02

05/02

21

07/02

Time (MM/DD)

09/01

11/01

30

20

10

01/01





## Beam ~ 520 kW

Congratulations to AD for reaching such a milestone!

Many thanks from Minos+ to everyone involved in making this possible.